CHAPTER VI

SUMMARY, OBSERVATIONS AND
CONCLUSION

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The present study began with the problem of the achievement of the students for the course Educational Evaluation. On scrutiny of the various possible conditions and the nature of the course it was found that the need was to improve the teaching technique of the course. Realizing the need and considering the various objectives of the course the investigation was undertaken to develop appropriate teaching strategy and to study its effectiveness. The preceeding chapters were intended tog give a complete account of the process followed throughout the investigation to find out the solution of the problem. After describing the process of inquiry, data analysis and interpretation it would be worthwhile to review the process in its totality. In the present chapter the review is followed by a few observations and suggestions.

The complete investigation was planned in six chapters, each of which had a specific contribution towards the total reporting of it.

The first chapter discusses the changing concept of teaching as a response to the change in social system and presents the various definitions of teaching. It explains why teaching is considered a science and gives the picture of present instructional process which is lacking in various aspects like achieving the instructional objectives, attending to the

individual differences, and making the meaningful and
efficient use of various techniques of teaching. To make the
instructional process effective, the need for certain changes
and more emphasis on an objective-based teaching-learning
process is proposed. It describes the whole process of
strategy development following the four steps and presents
the model of the process. Since the investigator's main
interest is to improve the instructional process at B.Ed.
level, and for the course Educational Evaluation, it provides
the rationale for developing strategy for it.

The second chapter includes a review of the related
studies undertaken in western countries and in India.
Different studies have been presented under the three main
aspects :

(a) Effective teaching patterns leading to the achievement
of various instructional objectives.

(b) Development and use of PLM, its role as a major
component in a teaching strategy.

(c) Relationship between achievement through PLM,
instructional strategy and certain students'
characteristics.

The third chapter contains the methodology employed
for the present investigation. It states the problem,
objectives and hypotheses of the study. It gives the descrip-
tion and various consideration for the selection of the

components PLM, library reading, discussion and practical work. The different terms used in the statement of the problem have been defined. The chapter includes scope, limitations, and sample of the study. It discusses the suitability of the one-group experimental design employed to achieve the desired objectives. It gives the complete account of the tools used for the collection of data and techniques used for its evaluation. The procedural details of the whole study containing four phases have been described in it. At the end, the scheme of evaluation of various aspects of the study has been given.

The fourth chapter describes how software material for the different components included in the strategy was developed. It describes the procedure followed during the field tryout to combine and integrate the different components in the development of the instructional strategy. It also discusses how the results on criterion tests and discussion on feedback sessions proved helpful for modifications and preparation of the final draft. To obtain the score on students' characteristics, the suitability of the different instruments with their procedure of adoption and preparation have been discussed there.

The fifth chapter deals with the conduct of the experiment and the evaluation of the instructional strategy. The whole

scheme of the conduct of the experiment has been given in the form of chart which presents the three stages of the whole experiment. At the end of the conduct of the experiment, the paradigm of the strategy developed for the purpose of the investigation has been given.

This chapter also presents the evaluation of cognitive and affective aspects of the students. It includes analysis of criterion tests and comprehensive test to present the evaluation of the instructional strategy as a whole. The results showed that hypotheses No.1 and 2 were accepted as the impact of the strategy on students' achievement was proved favourable. After presenting the evaluation of the instructional strategy as a whole, the evaluation of individual components was discussed. The results presented the high percentage of favourable reactions for three components, PLM, discussion and practical work, and comparatively less percentage of favourable reactions for the library reading.

The relationship of achievement of students through the instructional strategy and their intelligence, academic motivation and Gujarati language reading comprehension were also presented. The results revealed that, out of the three null hypotheses, No. 4, 5 and 6, the hypothesis No.4 was rejected, but No. 5 and 6 were not rejected.

At the end, findings of the investigation and discussion of results have been given.

The present chapter includes the summary of the whole investigation. It presents the observations based on the findings of the study. A few suggestions for further research are made. The chapter ends with the concluding remarks on the present investigation, and its contribution in the systematisation of instructional process in general and teaching of Educational Evaluation in particular.

6.1 Observations

On the basis of the findings certain observations have been presented hereunder :

The developed strategy was proved effective to the extent that 90 percent of students got 70 percent of marks, which led to confirm that selection and integration of different components facilitated learning (Refer Table 5.1). From the results, it can be obsefved that selection of different methods and materials according to the various objectives of the course and various students' abilities, contributed to the enrichment of instructional process.

Moreover, the achievement of students on knowledge, comprehension and application objectives (Table 5.2) also supports that different selected methods should not be used in isolation,

but should be integrated according to their specific functions to achieve the specific objectives and combined goal.

Based on the results of the strategy developed, it can be stated that in the present study, the treatment given through the four components PLM, Library reading, discussion and practical work, for studying the course Educational Evaluation, made the instructional process effective, in terms of the achievement of students.

The point to be stressed here is that the presence of variety of instructional materials, procedures and methods could help the teachers and learners to learn effectively and to obtain various objectives. If the student can't learn in one way, he should be assured that alternatives are available to him. And the teacher should come to recognize that it is the learning which is important and that alternatives exist, to ensure all or almost all the students to learn the subject to a high level of efficiency. Thus, an instructional process can be said to be effective when it provides the scope to accommodate students' of various abilities and various objectives of the course, through proper selection and integration of various techniques as a component method. In this context, the objective of the present study to develop the effective instructional strategy seems to be fulfilled to a great extent.

The same can also be observed from the high percentage of favourable reactions (Refer Table 5.8) of students towards the approach. The focus to be made here is that, any instructional process to say effective, it should be from students' point of view. When students' found the instructional process helpful and suitable to their needs, they could progress successfully to master the subject. The results and favourable reactions on strategy are sufficient enough to, judge the worth of the approach in the present investigation. There is hardly any provision in our traditional instructional process, to consider the students' reactions.

The next important point to be observed here is the need to see to what extent material or method adopted proved suitable to the learners to achieve the mastery in learning. In this context, it was found in the present study that the administration of criterion test at the end of every unit and feedback session after the criterion test, contributed more in the achievement of students (Refer Table 5.1). The attention to be drawn here is that, usually most of the teachers adopted the summative evaluation which is directed toward a much more general assessment to which the larger outcomes have been attained over the entire course. The need is to adopt the formative evaluation because its main purpose is to determine the degree of mastery of a given learning task and

to pinpoint the part of the task not mastered. Its objective is
:· t to help both the learner and teacher focus upon the particular
learning necessary for movement toward learning. In the present
study, administration of the criterion test and feedback session
after every unit provided the feedback to the students about
their mistakes in the test, what part of the content need to
concentrate more, and also to the teacher about the modification
of PLM, about clarity and appropriateness of the question
included, and the coverage of the content in the test. Thus,
throughout the study, it was experienced that it is not only
important to make teaching - learning effective, but also to
adopt the evaluation procedure in such a fashion that could
become the integral part of the instructional process. This can
be specifically observed from the evaluation of each individual
component included in the strategy. Due to such evaluation, the
present study seems to contribute substantially to the enrichment
of instructional process.

Let us now turn to the contribution of each one of the
components used in the strategy.

It is important to note here that PLM has been utilized as
the major component of the strategy, and supplemented by other
suitable components to achieve the combined goal. It has been
proved effective for the specific objectives, which might not
have been the case if it had been used as a sole technique to

achieve various objectives of the course. This again indicates that any component to be proved effective, should be selected and utilized properly. It may not be too much to say here that, PLM has played the role of a foundation on which rests the development of components like discussion, library reading and practical work which together contributed to the development of the strategy. Filep (1966) has rightly said that, 'programmed instructional materials and methods serve best when used as a part of the teaching package, integrated into the total instructional programme. If you choose them wisely and use them intelligently they offer decided advantages'.

The various experiences about the discussion revealed that very few students could participate in the discussion. This is because of their difficulty to express in the language (English) other than mother-tongue. It was observed in the present study, that the facility to express in mother-tongue made the discussion effective and fruitful to clarify their doubts, and to provide feedback to the teacher to modify instructional materials. The contribution of discussion in this fashion, occupies specific place in the enrichment of instructional process.

The practical work, in the present study, relates to the application ability of the students. The contribution of the practical work to the development of application ability in students was remarkable. It indicated that the provision of specific

learning experiences according to the specific objectives can become helpful in its achievement. Such provision is usually lacking in our traditional instructional process.

It was realized that library reading component needs to be studied thoroughly through better structuring.

Thus, it can be observed that, in the process to enrich the instructional process, selection of various components is not sufficient, the need is to treat them in a specific manner to make their contribution useful.

Finally, as regards the part played by certain characteristics of students in their overall achievement, it was found that the levels of intelligence played a vital role in the achievement of higher intelligence group and lower intelligence group. The achievement of higher intelligence group differed significantly from the achievement of lower intelligence group (Refer Table 5.11) which restricted the process to attain the mastery level. This can be interpreted in two ways. Either the material and component adopted did not cater to the need of lower intelligence group or certain other intervening variables affected their learning. The first interpretation can be ruled out if we consider the satisfactory performance of students on different individual components. Therefore, it can be observed that other unknown variables like study-habit, attitude for the subject, capacity to retain, environmental factors affected the achievement of the students of this particular group under study.

Thus, to talk about to plan the instruction according to the learners' need, according to the pre-determined objectives and to apply the formative evaluation, is to emphasize to adopt scientific concept of teaching in the instructional process. This could be possible through the application of principles of physical and behavioural sciences to the instructional process which is named as 'Instructional Technology' or 'Systems Approach to Instruction'. It is this nature of teaching which made possible the development of the instructional strategy in the present study. Therefore, it can be said that in an endeavour to systematise the instructional process, the development of strategy is of prime importance.

6.2 Suggestions for Further Research

* PLM should be integrated with other components like seminar, tutorial, and structured lecture, to develop the alternative strategies for studying the course Educational Evaluation.

* Studies should be undertaken to construct the achievement tests in various school subjects and at higher education aiming at establishing their validity and reliability.

* Relationship between achievement of students and other variables like study habit, retention, environmental factors, etc., which have not been included here should be studied.

* Studies should be conducted to construct the tools of evaluation for criterion referenced testing and mastery learning.

* Studies should be conducted on comparison of various strategies and to find out the relative effectiveness of different strategies.

* Studies on suitability of self-learning instructional techniques like assignment, project method, problem solving etc. should be undertaken particularly for the learners at teachers' training institution.

* Studies should be conducted to study the implementation of internal assessment, grading system and question bank - as a step towards examination reform.

* Various uses of programmed material like giving homework, supplementary learning material and revision material should be studied.

* Studies should be undertaken to develop the programmed text-book and semi-programmed text-book and to find out its suitability and feasibility as a regular text-book.

* Multi-media approach should be tried out where the availability of hardware gadgets like CCTV, films, is not difficult.

* Studies should be undertaken to utilise the common mass media like radio, documentary films, and scripts should be prepared for its effective utilisation.

6.3 Conclusion

The study reveals a number of findings quite useful for the educational institutions and the teachers as well. It is a matter past doubt that the evaluation procedure in our schools and colleges leaves much to be done even today with all the tall talks of marvellous achievements in the fields of science and technology. What is needed is the application or the implementation part of the research studies to actual classroom situation. Needless to say that in the present fast changing era of educational and population explosions we cannot remain static and uninterrupted. The classroom climate along with the teacher and the taught has to be refashioned and revitalised with the new gusto of change felt in the air around.

And what is all this for ? The answer is for improving teaching-learning situation in order to reap rich dividends. Since testing is a part of instructional process it has to be remodelled afresh so that the final product is superb - so that the attempts at mastery level learningndo not remain a mere dream only. With all that the present generation can get from the advances in science and technology, the instructional process has to be enriched to such an extent that individual differences and such other psychological needs of the learners can be at best attended too. This in its turn will reduce error

rate and pave way for self-learning with a fairly good amount of self confidence.

The evil of all evils perhaps is the way we teach, that is, the technique of teaching. If independent thinking and auto-instructional devices have proved themselves to be the best remedies to cure any educational ailment, why not put all efforts to achieve the best that we yearn for ? Undoubtedly, instead of one single method of teaching which leaves many instructional objectives unfulfilled, the wisest course is to go for a set of methods working as one integrated whole. This will recognize the worth of the individual's capacity, give him internal freedom and choices, make him ready to meet the challenging tasks coming in a stride and above all, prepare him for the battle of life, when social duties are undertaken in adult life.

If it be so, why not develop and cherish the desire of a classroom teacher's job, where there is absolute freedom and more time for relaxation and student counselling ? Teaching strategies, perhaps will add many more dimensions to the teaching-learning situations as well as the teacher's tasks. Especially, when it is a testing situation, the teacher's worries will be reduced to minimum if a course on Educational Evaluation is taught to him through an instructional strategy where different components like PLM, library reading, discussion and practical

work are fused together to make one method of teaching
effectively and meaningfully.

With more and more attempts of strategy development for
different instructional purposes, let us hope and wait for
that day when teaching learning processes become most fruitful,
paying and enjoyable to one and all.

Is it too much to say that the present study is definitely
a step in that direction ?

CHAPTER VI

REFERENCES

Bloom, B.S., Hastings, J.T., Madans G.F., Handbook on Formative and Summative Evaluation of Student Learning. McGraw-Hill Book Company, 1971. p.61-62.

Buch, M.B., Second Survey of Research in Education.(1972-78), Society for Educational Research and Development,Baroda, Baroda 1979.

Filep, R.T., Using Programmed Methods Effectively. Teacher's Encyclopedia, Prentice-Hall Editorial Staff. Englewood Cliffs, N.J.,Prentice-Hall, Inc. (1966), p.730.